Animal Feed Science and Technology, 40 (1993) 361–363
Elsevier Science Publishers B.V., Amsterdam

Contents of *Animal Feed Science and Technology*, Volume 40

VOL. 40 NO. 1 — DECEMBER 1992

Comparisons of methods for estimating in vivo digestibility of feedstuffs in dairy cattle
C.R. Stockdale (Kyabram, Vic., Australia) and S. Rathbone (Bundoora, Vic., Australia) 1

Evaluation of spent bleaching and filtering clay — a bentonite product from palm oil refining as a potential feed ingredient in layer diets
S.S. Al-Zubaidy (Basrah, Iraq) 13

Salicornia bigelovii Torr.: a seawater-irrigated forage for goats
E.P. Glenn, W.E. Coates, J.J. Riley, R.O. Kuehl and R.S. Swingle (Tucson, AZ, USA) 21

Effects of level of inclusion of copra meal in balanced diets supplemented with synthetic amino acids on growth and fat deposition and composition in growing pigs fed ad libitum at a constant temperature of 25 °C
P.J. Thorne, J. Wiseman, D.J.A. Cole (Loughborough, UK) and D.H. Machin (Chatham Maritime, UK) 31

Effects of ingestive and ruminative mastication on digestion of forage by cattle
K.A. Beauchemin (Lethbridge, Alta., Canada) 41

In vitro and in sacco methods for the estimation of dietary nitrogen degradability in the rumen: a review
B. Michalet-Doreau and M.Y. Ould-Bah (St. Genès Champanell, France) 57

Short Communication

Reproductive performance of dwarf breeder pullets fed yellow peas (*Pisum sativum* L. var. 'Miranda')
D.R. Kill and T.F. Savage (Corvallis, OR, USA) 87

VOL. 40 NOS. 2–3 — JANUARY 1993

Effects of four cereal grains on intake and ruminal digestion of harvested forage by beef steers
E.L. Fredrickson, M.L. Galyean, R.G. Betty and A.U. Cheema (Las Cruces, NM, USA) 93

Comparison of in vitro gas production and nylon bag degradability of roughages in predicting feed intake in cattle
M. Blümmel and E.R. Ørskov (Aberdeen, UK) 109

The upgrading of wheat straw by alkaline hydrogen peroxide treatment: The effect of NaOH and H_2O_2 on the site and extent of digestion in sheep
R. Meeske (Irene, South Africa), H.H. Meissner (Pretoria, South Africa) and J.P. Pienaar (Irene, South Africa) 121

Chemical and nutritional evaluation of soya protein preparations as primary nitrogen sources for rainbow trout (*Oncorhynchus mykiss*)
G.L. Rumsey, S.G. Hughes and R.A. Winfree (Cortland, NY, USA) 135

Processing of slaughterhouse blood and poultry litter and the effects on nutrient digestibility by steers
O.A. Ayangbile, S.K. Tallam and M.S. Surtan (Njoro, Kenya) 153

The effect of maize grain supplementation of diets based on wheat straw and poultry litter on their utilization by beef cattle
A. Brosh, Z. Holzer, D. Levy and Y. Aharoni (Haifa Post, Israel) 165
Influence of urea feeding duration on nitrogen metabolism of rumen bacteria and their host sheep
Y. Kobayashi, M. Wakita and S. Hoshino (Tsu, Mie, Japan) 177
In sacco degradation of dry matter and nitrogen in oven dried and fresh tropical grasses and some relationships to in vitro dry matter digestibility
J.D. Kabuga and C.A. Darko (Kumasi, Ghana) 191
Effects of gaseous ammonia on chemical and structural features of cell walls in spring barley straw
M. Goto, Y. Yokoe (Tsu, Japan), K. Takabe (Kyoto, Japan), S. Nisikawa and O. Morita (Tsu, Japan) 207
In vivo apparent digestibility and in vitro solubilization—the influence of pig live weight and diet
W. Löwgren (Uppsala, Sweden), H. Graham (Marlborough, Wiltshire, UK) and P. Åman (Uppsala, Sweden) 223
The growth of broiler chickens as affected by the replacement of graded levels of maize by sweet potato leaves (*Ipomoea batatas*) or Ndole (*Vernonia* spp.) in the finisher diet
A. Teguia, J. Tchoumboue, B.T. Mayaka and C.M. Tankou (Dschang, Cameroon) 233
Wilted tagasaste (*Chamaecytisus palmensis*) forage as a replacement for a concentrate supplement for lactating crossbred Friesian×Zebu (Boran) dairy cows fed low-quality native hay
T. Varvikko and H. Khalili (Addis Ababa, Ethiopia) 239
Application of an inhibitor in vitro method for estimating rumen degradation of feed protein
S.A. Neutze, R.L. Smith and W.A. Forbes (Camden, N.S.W., Australia) 251

Short Communication
Evaluation of cocoa-pod husks on performance of rabbits
B.H. Ridzwan, M.K. Fadzli, M.B.O. Rozali, D.T.F. Chin, B.M. Ibrahim and B.I. Faridnordin (Kota Kinabalu, Sabah, Malaysia) 267

VOL. 40 NO. 4 **FEBRUARY 1993**

Grass and lupin silage in rations for beef steers supplemented with barley or potatoes
S.R. Murphy, M.A. McNiven, J.A. MacLeod and L.J. Halliday (Charlottetown, P.E.I., Canada) 273
Disappearance of protein supplements and their fractions in sacco
M. Wadhwa, G.S. Makkar and J.S. Ichhponani (Ludhiana, India) 285
Selenium supplements for grazing sheep 3. Development of an intra-ruminal pellet with an extended life
G.E. Donald, J.P. Langlands, J.E. Bowles, A.J. Smith and G.L. Burke (Armidale, N.S.W., Australia) 295
An in vitro assessment of several enzymes for the supplementation of rabbit diets
B. Yu and H.Y. Tsen (Taichung, Taiwan, ROC) 309
Dry matter disappearance and gelatinization of grains as influenced by processing and conditioning
K.J. Malcolm (Clayton, NM, USA) and H.E. Kiesling (Las Cruces, NM, USA) 321
The influence of ageing on cell wall composition and degradability of three maize genotypes
J.W. Cone and F.M. Engels (Wageningen, Netherlands) 331
Comparative studies on the degradation and mean retention time of solid and liquid phases in the forestomachs of dromedaries and sheep fed on low-quality roughages from Tunisia

C. Kayouli (Tunis, Tunisia), J.P. Jouany (Saint-Genès Champanelle, France), D.I. Demeyer (Melle, Belgium), Ali-Ali, H. Taoueb (Tunis, Tunisia) and C. Dardillat (Saint-Genès Champanelle, France) 343

Author Index 357

Contents of *Animal Feed Science and Technology*, Volume 40 361